## **Description:**

AB 32 requires that ARB establish regulations to reduce statewide greenhouse gas emissions in 2020 to the 1990 level, but it also requires that the regulations be "technologically feasible and cost-effective" and gives ARB no authority to suspend or amend the cap in the event that it cannot be achieved cost-effectively. Under such circumstances the Governor would have the authority to "adjust the applicable deadlines for individual regulations, or for the state in the aggregate, to the earliest feasible date after that deadline" (Sec. 38599(a)). During the suspension period the cap would not be achieved, but it would be advantageous to provide the Governor the option of using the established AB 32 regulatory mechanism to manage compliance incentives and at least maintain feasible and cost-effective emission reductions.

A safety valve (i.e. price cap), instituted by ARB but subject to the Governor's authority, would provide such a mechanism. In the event that the Governor's intervention authority under Sec. 38599(a) is invoked, the Governor could authorize ARB to continue the cap-and-trade system, but with no limit on the number of allowances sold at the safety valve limit price. This mechanism would provide a means for bringing regulated industries into conformance with the regulations prior to the revised deadline.

## Emission Reduction Calculations and Assumptions:

AB 32 requires emission reductions of about 29% from a projected 2020 baseline of 600 MMT. If the safety valve is invoked, the expected reduction would be less than 29%. But under the more likely scenario that the safety valve mechanism does not need to be invoked, its existence could possibly facilitate emission reductions greater than 29%.

Without a safety valve, the alternative means of mitigating price spikes and volatility would be banking, which would have the short-term effect of inducing overcompliance. Trading prices would rise and emissions would fall as banked allowances are effectively taken off the market; but in the long term emissions would rise as banked allowances are eventually used.

With a safety valve and no banking, the same short-term effect could be achieved with a price floor, which would encourage industry to purchase fewer emission allowances than are required to achieve the cap. Emission reductions beyond the minimal cap-imposed requirement could be achieved with a price floor (without increasing long-term emissions), to the extent that such further reductions would be cost-effective. Banking would dilute the effectiveness of a price floor, because it would induce industry to acquire more, not fewer allowances. The theoretical advantage of banking over a safety valve is that is preserves the cap over the long term, but the disadvantage is that it dilutes the incentive for long-term overcompliance in the event that prices remain low. Banking would interfere with efforts to achieve significantly greater emission reductions

that will be required after 2020, whereas a price floor could provide a seamless transition to post-2020 regulations.

## <u>Cost-Effectiveness Calculations and Assumptions:</u>

In the event that the safety valve is invoked, the aggregate marginal cost of regulation-induced emission reductions would not exceed the price cap, which would be set by Executive Order.

It should be recognized that the economic impact of the regulations on industry is determined not only by marginal costs, but also by distributional costs, which can be mitigated by distributing some or all allowances freely, or (equivalently) by refunding some or all auction revenue to regulated entities. For example, output-based allocation of allowances or refunds could significantly mitigate distributional costs while creating strong incentives for low-emission and renewable energy production, which would help keep energy prices down while still achieving the cap. Distributional costs can be managed to minimize any "threat of significant economic harm" that might necessitate Executive intervention.

## <u>Implementation Barriers and Ways to Overcome Them:</u>

The primary barrier is the perception, as articulated in the Market Advisory Committee's report, that a safety valve would be incompatible with the "absolute" cap imposed by AB 32. This perception can be overcome by recognizing that the Sec. 38599(a) intervention authority granted to the Governor effectively constitutes a "safety valve", and that if this authority is invoked there must be some instituted mechanism for bringing regulated industries into conformance with the regulations before the cap can again be imposed. Banking would encourage regulated firms to acquire more allowances than they need, as a hedge against price risk. Conversely, a safety valve will release additional allowances only in the unlikely event that they are needed, and only in the amount needed, and will not deter overcompliance in the event that emission prices remain low.